

Remarks

The Applicants note with appreciation the Examiner's helpful suggestion with respect to correction of Claim 76. The minor typographical error has been corrected.

The Applicants acknowledge the rejection of Claims 68 – 77 under 35 U.S.C. §112 with respect to “small radius”. The Applicants have amended Claim 68 to remove “small”. Withdrawal of the §112 rejection is respectfully requested. The Applicants have added the subject matter of Claim 69 into independent Claim 68. Claim 69 has been cancelled. The Applicants respectfully submit that such amendment renders the following rejections moot:

Claims 68, 70 and 72 –74 over the combination of Raech and Day with Seemann;

Claim 75 over the combination of Folsom, Newsom and Raech with Day;

Claims 76 – 77 over the combination of Seemann, Folsom, Newsom, Raech and Day; and

Claims 75 – 77 over the combination of Folsom, Newsom, Raech and Day with Seemann.

Confirmation of withdrawal of those rejections is respectfully requested.

The sole remaining rejection in the case is the rejection of Claims 68 and 70 – 71 over the hypothetical combination of Raech with Day. The Applicants respectfully submit that, even if Day and Raech are hypothetically combined together, such a hypothetical combination still fails to teach or suggest the claimed process. First, the Applicants respectfully submit that Day discloses foam boards that are all flat plates. However, the claimed invention includes the step of “providing a plurality of plate-shaped core materials, each of which has a curved surface portion having a radius of curvature on at least a part of the core material.” Day fails to teach or suggest this. Specifically, the respective core materials described in Day are all rectangular parallelopiped (a stack of strips 58) and they are quite different in shape from the shape of the invention having a curved surface portion on at least a part of the core material.

Because the materials used by Day are different from the materials used in the invention, Day inherently does not include the claimed second step of “forming a stacked body of core materials having said curved surface portion on at least a part of the body by stacking a plurality of said core materials in the thickness direction of the body to a target thickness so that said curved surface portions of the core material overlap each other.” In particular, because the curved surface portions do not exist on the Day core materials at all, even if the core materials are stacked, a curved surface portion is not at all formed on the stacked body.

Also, even though Day has in Fig. 15 a structure similar to the curved surface portion of the invention, in that Fig. 15, because the thickness of the foam panel 138 in the radial direction is changed and bent in the panel 145 itself, which corresponds to the core material of the invention, is not bent in the thickness direction, the process is again inherently completely irrelevant to the invention.

Day also differs because the curved portion does not exist at all in the core material in the process of Day. Therefore, Day inherently does not include a third step of “disposing or reinforcing fiber substrate on at least one surface of said stacked body of core materials along said curved surface portion of said stacked body of core materials.”

A further difference in Day may be found with respect to the claimed thickness of 20 mm or less per one core material. In that regard, the Applicants note with appreciation the Examiner’s helpful comments concerning the disclosure in Day with respect to thickness at Column 7, lines 40 – 44. However, the thickness referred to by Day is a different thickness than that claimed herein. The thickness of Day is not a thickness in the normal “thickness” direction of the claims but, instead, is actually a thickness in the “width” direction. In other words, the thickness of Day is a measurement direction that is 90° different from the thickness direction in the invention. Said

differently, if one refers to a three-dimensional diagram with X, Y and Z directions, Day refers to an X direction, while the invention refers to a “Z” direction for its thickness.

The Applicants respectfully submit that hypothetically combining Raech with Day does nothing to cure the deficiencies set forth above with respect to Day. In that regard, the Applicants note with appreciation the Examiner’s helpful comments that Raech teaches plate-shaped cores (20) having a curved portion (28) with a small radius on a part thereof. In the panel 16 described in Column 3 at lines 4 – 26 and Fig. 3, even if the respective members of outermost layer 18 and innermost layer 20 forming panel 16 themselves have curved surface portions 28, even if a plurality of outermost layers 18 and innermost layers 20 are stacked, a curved surface portion is not formed in the stacked body after stacking. Therefore, the stacked body after stacking is a flat-plate structure as a whole. This is readily apparent because, if a curved surface portion was formed in the stacked body as is the case in the invention, it could not function as a heliport, which is the intended function of Raech as shown in Fig. 1.

In any event, even assuming the hypothetical combination, neither reference teaches or suggests that each core material itself is bent in its thickness direction to form a small curved surface portion, and by overlapping the curved surface portions with each other, a similar curved surface portion is formed on the stacked body after stacking. The Applicants accordingly respectfully request withdrawal of the rejection of Claims 68 – 71 based on the hypothetical combination of Raech with Day.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



T. Daniel Christenbury
Reg. No. 31,750

TDC:lh
(215) 656-3381